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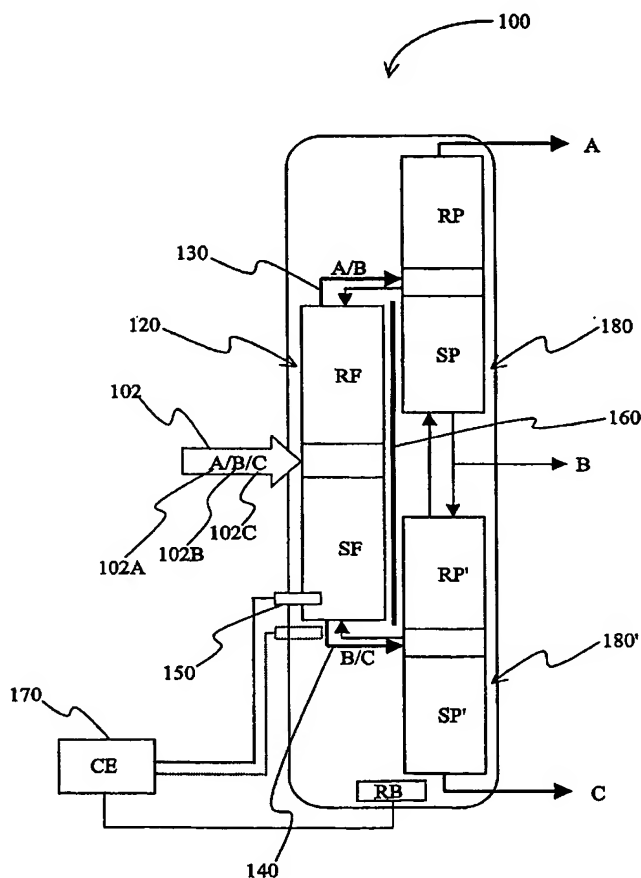
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(54) Title: **IMPROVED DISTILLATION SYSTEMS**



(57) Abstract: A differential vapor pressure (DVP) cell (150) is disposed in a divided wall column (100) that receives a feed comprising a first (102A), second (102B), and third (102C) component. A separation section (120) on the feed side of the divided wall column separates the feed in a vapor comprising the first and second component, and a liquid comprising the second and third component. The DVP cell is disposed in the divided wall column at a level below the point where the feed enters the column, and the DVP cell measures the concentration of the first component.